

CLAIMS

What is claimed is:

1. An inertia increasing seat-recliner assembly for adjusting the angular position of a seat back relative to a seat bottom, said recliner assembly comprising:

a drive assembly;

a driven assembly adapted to be coupled to one of the seat bottom and the seat back;

a transmission assembly disposed between and operably connecting said drive and driven assemblies; and

a coupling disposed between said drive assembly and said transmission assembly including a first member and a second member adapted to selectively disengage and increase inertia in said drive assembly prior to driving said transmission assembly;

said first member having a radial arm appending therefrom;

said second member having a longitudinal arm appending therefrom;

one of said first and second members connected to said drive assembly and the other of said first and second members connected to said transmission assembly, said radial and longitudinal arms moveable relative each other along a common circular path, wherein relative motion of said longitudinal and radial arms causes engagement thereof and enables said drive assembly to drive said transmission assembly.

2. The seat-recliner assembly of claim 1, wherein said drive assembly includes an actuator and an actuator cable.

3. The seat-recliner assembly of claim 2, wherein said actuator includes a bi-directional electric motor.

4. The seat-recliner assembly of claim 1, wherein said transmission assembly includes a rotary seat-recliner assembly.

5. The seat-recliner assembly of claim 2, wherein said transmission assembly includes a drive shaft and a gear train operably connecting said drive shaft to said driven assembly.

6. The seat-recliner assembly of claim 5, wherein said coupling is disposed between said actuator cable and said drive shaft.

7. The seat-recliner assembly of claim 1, wherein said first and second members have a generally cylindrical geometry and said radial and longitudinal arms have a generally arched geometry.

8. The seat-recliner assembly of claim 1, wherein said second member includes a collar attached to a distal end of said longitudinal arm, said collar adapted to receive said first member for maintaining alignment of said first and second members.

9. The seat-recliner assembly of claim 1, wherein said first member includes an alignment pin and said second member includes an alignment cavity for receiving said alignment pin, thereby maintaining axial alignment of said first and second members.

10. The seat-recliner of claim 1, wherein said first member includes a plurality of radial arms and said second member includes a plurality of longitudinal arms.

11. The seat-recliner assembly of claim 1, wherein said coupling includes a housing for enclosing at least a portion of said first and second members.

12. A vehicle seat comprising:

a seat bottom;

a seat back coupled to said seat bottom and capable of pivotal adjustment relative to said seat bottom;

an inertia increasing seat-recliner assembly for adjusting the angle of said seat back relative to said seat bottom, said recliner assembly comprising:

a drive assembly;

a driven assembly adapted to be coupled to one of said seat bottom and said seat back;

a transmission assembly disposed between and operably connecting said drive and driven assemblies; and

a coupling disposed between said drive assembly and said transmission assembly including a first member and a second member adapted to selectively disengage and increase inertia in said drive assembly prior to driving said transmission assembly;

said first member having a radial arm appending therefrom;

said second member having a longitudinal arm appending therefrom;

one of said first and second members connected to said drive assembly and the other of said first and second members connected to said transmission assembly, said radial and longitudinal arms moveable relative each other along a common circular path, wherein relative motion of said longitudinal

and radial arms causes engagement thereof and enables said drive assembly to drive said transmission assembly.

13. The vehicle seat of claim 12, wherein said drive assembly includes an actuator and an actuator cable.

14. The vehicle seat of claim 13, wherein said actuator includes a bi-directional electric motor.

15. The vehicle seat of claim 12, wherein said transmission assembly includes a rotary seat-recliner assembly.

16. The vehicle seat of claim 13, wherein said transmission assembly includes a drive shaft and a gear train operably connecting said drive shaft to said driven assembly.

17. The vehicle seat of claim 16, wherein said coupling is disposed between said actuator cable and said drive shaft.

18. The vehicle seat of claim 12, wherein said first and second members have a generally cylindrical geometry and said radial and longitudinal arms have a generally arched geometry.

19. The vehicle seat of claim 12, wherein said second member includes a collar attached at a distal end of said longitudinal arm adapted to receive said first member for maintaining alignment of said first and second members.

20. The vehicle seat of claim 12, wherein said first member includes an alignment pin and said second member includes an alignment cavity for receiving said alignment pin, thereby maintaining axial alignment of said first and second members.

21. The vehicle seat of claim 12, wherein said first member includes a plurality of radial arms and said second member includes a plurality of longitudinal arms.

22. The vehicle seat of claim 12, wherein said coupling includes a housing enclosing at least a portion of said first and second members.